

## AMENDMENTS TO SPECIFICATION

Please amend the Paragraph extending from Page 5, line 5 to Page 6, line 3, as follows:

For the noisy speech spectrum  $|Y_r(i,k)|^2$  and noise spectrum  $|W_r(i,k)|^2$ , the method of the present invention utilizes a sub-band over-subtraction mechanism to determine the estimate of clean speech spectrum  $|\hat{S}_r(i,k)|^2$ , which is then processed by IFFT (Inverse Fast Fourier Transform) (Step S207) for being restored to enhanced frame signal  $\hat{s}_r(k)$ . The method of the present invention partitions the frequency band into multiple sub-bands and ~~perform~~performs over-subtraction on each sub-band to implement over-subtraction on each sub-band, it is first performed a sub-band SNR estimation (step S204) to estimate ~~a~~an SNR value for determining the over-subtraction factor of the sub-band. The SNR value can be obtained by a regression formula as follows:

$$SNR_r(i) = \mu \cdot SNR_{r-1}^o(i) + (1 - \mu) \cdot 10 \cdot \log_{10} \left( \frac{\sum_{k \in \text{sub-band } i} |Y_r(i,k)|^2}{\sum_{k \in \text{sub-band } i} |W_r(i,k)|^2} - 1 \right)$$

where  $i$  is the index of the sub-band,  $SNR_r(i)$  is the SNR estimate of the  $i$ -th sub-band for the  $r$ -th frame,  $|Y_r(i,k)|^2$  is the noisy speech spectrum of the  $r$ -th frame at the  ~~$k$ -th~~ $k$ -th frequency component of the  $i$ -th sub-band,  $|W_r(i,k)|^2$  is the corresponding noise spectrum,  $\mu$  is a predetermined weight in a range of  $0 < \mu < 1$ , and  $SNR_{r-1}^o(i)$  is the SNR of the sub-band for the previous frame after noise reduction, which is expressed by the following formula:

$$SNR_{r-1}^o(i) = 10 \cdot \log_{10} \frac{\sum_{k \in \text{sub-band } i} |\hat{S}_r(i,k)|^2}{\sum_{k \in \text{sub-band } i} |W_r(i,k)|^2},$$

where  $|\hat{S}_r(i,k)|^2$  is the estimate of the clean speech spectrum of the previous, i.e., the  $(r-1)$ -th, frame after being processed in the sub-band  $i$ .